HONOLULU ENGINEER DISTRICT

The civil works responsibilities of the Honolulu District encompass the State of Hawaii, the Territory of Guam, the Territory of American Samoa, and the Commonwealth of the Northern Mariana Islands. The district is unique in that its area of responsibility is totally comprised of islands dispersed over an ocean environment exceeding 6 million square miles.

IMPROVEMENTS

Navigation

1. KIKIAOLA SMALL BOAT HARBOR, KAUAI, HAWAII

Location. Kikiaola Harbor is located on the southwest coast of the island of Kauai, approximately 1 mile southeast of Kekaha and approximately 2 miles west of Waimea (See NOAA Chart 19386)

Existing project. The authorized project consists of removing a 150-foot long portion from an existing outer east stub breakwater; removing and reconstructing a 85-foot long inner east stub breakwater; modifying 220-foot long portion of the existing west breakwater; modifying 820-foot long portion of the existing east breakwater; dredging a new 700-foot long entrance channel to a depth of 11-feet and varying in width from 105 to 205-feet; and dredging a 320-foot long access channel to a 7-foot depth and varying in width from 70 to 105-feet.

Local cooperation. The local sponsor has reviewed and approved the Project Cooperation Agreement (PCA). Legal certification of the PCA is being prepared by District counsel.

Terminal facilities. There is an existing 1,280–foot long east breakwater with two short stub breakwaters; a 600-foot long west breakwater; a 150-foot long by 10-foot wide wooden wharf; a 50-foot long loading dock and adjacent launch ramp, all constructed by the State of Hawaii.

Operations during fiscal year. Work during the Fiscal Year included completion of plans and specifications and environmental coordination. Breakwater modifications were redesigned to reduce costs and improve constructability. A Limited Reevaluation Report was completed to update the economic analysis. Total costs incurred during the Fiscal Year were $97,924.

2. MAALAEA HARBOR, MAUI, HAWAII

Location. Maalaea Bay is situated on the southwest coast of Maui, approximately 7 miles south of Wailuku, the county seat of Maui. (See NOAA Chart 19350)

Existing project. For a description of the existing project, see page 36–3 of the Fiscal Year 1989 Annual Report. (See Table 36–B for Authorizing Legislation)

Local cooperation. The Project Cooperation Agreement (PCA) is delayed due to concerns raised as a result of the Supplemental Environmental Impact Statement review.

Terminal facilities. There is an existing 1,000–foot long south breakwater, a 870–foot long east breakwater, 300–foot long wharf, 90–foot wide entrance channel, and a single lane launch ramp, all constructed by the State of Hawaii.

Operations during fiscal year. Work during the Fiscal Year included continuing coordination with the local sponsor and various agencies on resolving controversial environmental issues, continuing development of acceptable mitigation features for impacts to environmental resources and completing a physical model study of the alternatives to address environmental concerns. Total costs incurred during the Fiscal Year were $140,217.

3. KAUMALAPAU HARBOR, LANAI, HAWAII

Location. The project is located on the southwestern coast of the Island of Lanai. (See NOAA Chart 19351)

Existing project. The project would repair the existing breakwater built in 1925 that was previously owned by private interests. The existing breakwater will be repaired using 35-ton core loc concrete armor units. The length of the breakwater will be 320 feet long.

Local cooperation. The Project Cooperation Agreement (PCA) was executed in September 2003. The local sponsor, the State of Hawaii, shall:

(1) Contribute 10 percent of that portion of the total cost of construction of the general navigation features assigned to dredging to a depth not in excess of 20 feet plus associated over-depth and entrance channel wave allowances; plus 25 percent of that portion of the total cost of construction of general navigation features assigned to dredging to a depth in excess of 20 feet but not in excess of 45 feet plus associated over-depth and entrance channel wave allowances;

(2) Provide all lands easements and rights of way or to perform relocations that the Government determines to be necessary for the construction, operation, and maintenance of general navigation features including the borrowing of material or the disposal of dredged or excavated materials;

(3) Contribute over a period not to exceed 30 years an amount equal to the 10 percent amount reduced by credit for lands, easements, rights of way, or relocations.

Terminal Facilities. A damaged rubblemound breakwater protects the harbor basin approximately 200 feet in length, with a crest elevation of about 10 feet.

Operations during fiscal year. Work during the Fiscal Year included completion of plans and specifications.

Total costs incurred during the Fiscal Year were $95,849.

4. RECONNAISSANCE AND CONDITION SURVEYS

Condition surveys were conducted by the Portland District at Barbers Point and Honolulu Harbors, island of Oahu; Nawiliwili Small Boat Harbor and Port Allen Harbor, island of Kauai; Kalaupapa Harbor and Kaunakakai Harbor, island of Molokai; Hilo Harbor, Honokohau Small Boat Harbor, Kawaihae Deep Draft Harbor, Kawaihae Small Boat Harbor, and Laupahoehoe Light Draft Navigation Facility, island of Hawaii; and Rota Harbor, Commonwealth of the Mariana Islands during Fiscal Year 2003. Total cost to conduct the survey was $109,100. See Table 31-H for navigation inspections performed during the Fiscal Year.

5. INSPECTION OF COMPLETED FLOOD CONTROL AND BEACH EROSION CONTROL PROJECTS

Inspection of completed local flood protection projects is performed periodically in compliance with Section 208.10, of Title 33, Code of Federal Regulations, which contains regulations for operation and maintenance of local flood-protection works approved by the Secretary of the Army in accordance with authority in Section 3, Flood Control Act of June 22, 1936.

Inspection costs for completed flood control and beach erosion control projects incurred during the Fiscal Year were $247,830. See Table 31-I for inspections performed during the Fiscal Year.

6. NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

Navigation activities pursuant to Section 107, Public Law 86–645, as amended (Preauthorization).
See Table 31-J.

Beach Erosion Control

7. LAUNIUPOKO SHORELINE PROTECTION, MAUI, HAWAII

Location. The project is located on the western coast of the Island of Maui. The Island of Maui is located approximately 100 miles southeast of Honolulu, Hawaii. (See NOAA Chart 19348)

Existing project. The project construction consists of two reaches, totaling approximately 500 feet, of rubble mound revetments with a crest elevation of +12-feet (MLLW). The single layer revetment will be constructed of 1600-2500 pound armor stone, over a 2-foot thick underlayer of 50-150 pound stone.

Local cooperation. The Project Cooperation Agreement (PCA) was executed in January 2002. Requirements are described in full on Page 31-3 of the FY2002 Annual Report.

Operations during fiscal year. Work has been temporarily suspended. Total costs incurred during the Fiscal Year were $39,737.

8. BEACH EROSION WORK UNDER SPECIAL AUTHORIZATION

Emergency streambank and shoreline protection activities pursuant to Section 14, Public Law 79–526, as amended (Preauthorization). See Table 31–K.

Beach Erosion control activities pursuant to Section 103, Public Law 87-874, as amended (Preauthorization). See Table 31-L.

Shoreline Erosion control development and demonstration program pursuant to Section 227, Public Law 104-303, as amended. Fiscal Year costs were $20,000.

Flood Control

9. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Flood control activities pursuant to Section 205, Public Law 80–858, as amended (Preauthorization).
See Table 31-M.

Project Modifications for Improvements of Environment pursuant to Section 1135, Public Law 99–662, as amended (Preauthorization).
See Table 31-N.

Aquatic Ecosystem Restoration pursuant to Section 206, Public Law 104-303. (Preauthorization)
Fiscal year costs were $143,789 for Saipan Lagoon, CNMI; $49,251 to conduct initial appraisal reports; and $10,214 for coordination with other agencies.

Emergency flood control activities pursuant to Public Law 84–99.
Federal cost during the fiscal year for Flood Control and Coastal Emergencies appropriation was $3,013,346 of which $321,661 was for disaster preparedness; and $760,852 for emergency operations; $25,000 for field investigations; $1,880,346 for rehabilitation, and $25,487 for continuing eligibility inspections.

General Investigations

10. SURVEYS

Fiscal year costs were $979,693 of which $211,791 was for navigation studies; $69,135 was for flood damage prevention studies; $375,314 for special studies; $295,453 for miscellaneous activities; and $28,000 for coordination with other agencies. In addition, $25,254 in non–Federal funds for coordination with other agencies; $266,305 for cost–shared navigation studies; and $216,314 for cost-shared special studies.

11. COLLECTION AND STUDY OF BASIC DATA

Flood plain management services. The Flood Plain Management Services Program is authorized and implemented under Section 206, PL 86–645, 1960 Flood Control Act, as amended. Through technical services and planning guidance, the program provides information on floods and flood related information to improve planning for the careful use of the nation's flood plains, thereby reducing the potential for losses to life and property from floods and wave actions. Non–Federal agencies are assisted with flood hazard evaluation and planning information for flood and coastal hazard areas without charge.

As of November 1991, Federal agencies and private entities were also offered these services on a cost recovery basis. This assistance is in the form of local flood plain regulations, National Flood Insurance Requirements, and Executive Order 11988 requirements for federal agencies. Such assistance may include flood information and timing, floodwater velocity, extent of flooding, duration of flooding, flood frequency and regulatory floodway limits.

Services accomplished during fiscal year. There were 598 site requests for technical services and planning assistance and publication responses. These services were requested and provided to Federal agencies, state and local government agencies, individuals, realtors, corporations, lending institutions, engineers, architects and other private parties. Costs for providing these services during the fiscal year were $218,207.
Hydrologic Studies. Storm studies cost was $40,001. Total costs for collection and study of basic data during the fiscal year were $258,208.

TABLE 31–A COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total Cost to Sept. 30, 2003
1.	Kikiaola Small	New Work:					
	Boat Harbor,	Approp.	94,000	70,000	81,000	95,000	1,560,000
	Kauai, HI	Cost	60,330	108,409	95,465	97,924	1,551,798
	(Federal Funds)						
2.	Maalaea Harbor	New Work:					
	Maui, HI	Approp.	445,000	272,000	223,000	284,000	4,489,700
	(Federal Funds)	Cost	602,203	202,060	229,799	140,217	4,279,701
3.	Kaumalapau Harbor	New Work:					
	Lanai, HI	Approp.	---	2,994,000	1,300,000	994,000	5,288,000
	(Federal Funds)	Cost	---	100,994	324,455	95,849	521,298
7.	Launiupoko	New Work:					
	Shoreline Protection	Approp.	10,000	36,000	292,000	-61,000	390,000
	Maui, HI	Cost	6,818	45,833	34,869	39,737	231,800
	(Federal Funds)						
	(Contributed	Contrib.	---	---	244,000	---	244,000
	Funds)	Cost	---	---	3,533	12,160	15,693

TABLE 31–B AUTHORIZING LEGISLATION

See Section In Text	Date Authorizing Act	Project and Work Authorized	Documents
1.		**KIKIAOLA SMALL BOAT HARBOR, KAUAI, HAWAII**	
	Aug. 3, 1968	A 700–foot long, 105 to 205–foot wide, and 11–foot deep entrance channel; a 320-foot long, 70 to 105–foot wide, and 7-foot deep access channel; modification of 220–foot portion of the existing west breakwater; and modification of 820-foot portion of the existing east breakwater; removal and reconstruction of a 85-foot long inner east breakwater; removal of a 150-foot long portion of the existing outer east stub breakwater.	Sec 101, PL 90–483 Cong., 2nd sess.
2.		**MAALAEA HARBOR, MAUI, HAWAII**	
	Aug. 3, 1968	A 620–foot long extension of the south breakwater, a new 610–foot length, 150 to 180–foot width, 12 to 15–foot depth entrance channel, a 1.7 acre and 12–foot depth turning basin and a 720–foot length, 80–foot width and an 8–foot deep access channel.	Sec 101, PL 90–483 Cong., 2nd sess.
3.		**KAUMALAPAU HARBOR, LANAI, HAWAII**	
	Oct. 27, 2000	Repair existing breakwater using 35-ton core loc concrete armor units. The length of the repaired breakwater will be 320 feet.	Sec 1(a), PL 106-377 Cong, 2nd sess.
7.		**LAUNIUPOKO SHORELINE PROTECTION, MAUI, HAWAII**	
	Jul. 24, 1946 As amended	Two reaches of rubble mound revetment totaling 500 feet in length; the single layer revetment constructed of 1,600 to 2,500 pound armor stone, over a 2-foot underlayer of 50 to 150 pound stone.	Sec 14, PL 79–526 Authorized by POD Dec. 27, 2001

TABLE 31–C OTHER AUTHORIZED NAVIGATION PROJECTS

Project	Status	For Last Full Report See Annual Report for:	Cost to September 2003	
			Construction	Operations and Maintenance
Agana Small Boat Harbor, Guam	Completed	1978	$ 937,798 [1]	$ 52,555
Agat Harbor, Guam	Completed	1989	2,000,000 [2]	---
Auasi Harbor, American Samoa	Completed	1982	1,033,015 [3]	141,797
Aunuu Harbor, American Samoa	Completed	1982	1,783,129 [4]	1,413,179
Barbers Point Harbor, Oahu, Hawaii	Completed	1990	53,519,193 [5]	2,247,953
Haleiwa Small Boat Harbor, Oahu, Hawaii	Completed	1978	527,047 [6]	498,402
Hilo Harbor, Hawaii, Hawaii	Completed	1991	5,512,440	4,106,308
Honokohau Small Boat Harbor, Hawaii, Hawaii	Completed	1971	781,036 [7]	63,693
Honolulu Harbor, Oahu, Hawaii	Completed	1985	16,044,095 [8]	4,803,957
Kahului Beach Road, Maui, Hawaii	Completed	1976	751,867 [9]	---
Kahului Harbor, Maui, Hawaii	Completed	1984	7,203,221 [10]	9,103,254
Kalaupapa Harbor, Molokai, Hawaii	Completed	1968	157,997 [9]	3,127
Kaulana Bay Boat Harbor, Hawaii, Hawaii	Inactive	1990	171,400	---
Kawaihae Harbor, Hawaii, Hawaii	Completed	1998	12,043,843 [11]	61,800
Keehi Lagoon, Oahu, Hawaii	Completed	1956	3,348,000 [12]	41,857
Kikiaola Small Boat Harbor, Kauai, Hawaii	Active	1981	193,000	---
Laupahoehoe Harbor, Hawaii, Hawaii	Completed	1990	3,623,450 [13]	---
Manele Bay Small Boat Harbor, Lanai, Hawaii	Completed	1986	372,000 [14]	555,926
Nawiliwili Harbor, Kauai, Hawaii	Completed	1987	2,127,724 [15]	11,047,279
Nawiliwili Small Boat Harbor, Kauai, Hawaii	Completed	1976	584,513 [16]	30,707
Ofu Small Boat Harbor, American Samoa	Completed	1976	980,018 [17]	5,054,930
Pohoiki Bay, Hawaii, Hawaii	Completed	1979	432,523 [9]	---
Port Allen Harbor, Kauai, Hawaii	Completed	1984	752,645 [18]	3,135,801
Rota Harbor, CNMI	Completed	1985	2,000,000 [19]	436,200
Saipan Small Boat Harbor, CNMI	Deferred	1982	194,000	---
Tau Small Boat Harbor, American Samoa	Completed	1985	1,991,569 [20]	546,600
Waianae Small Boat Harbor, Oahu, Hawaii	Completed	1979	1,940,011 [21]	122,400
Welles Harbor, Midway Island	Completed	1950	2,448,056 [22]	2,111

[1] Authorized by the Chief of Engineers. In addition, Contributed Funds of $282,474 for Construction.

[2] In addition, Contributed Funds of $1,239,364 for Construction.

[3] Authorized by the Chief of Engineers. In addition, Contributed Funds of $86,563 for Construction.

[4] Authorized by the Chief of Engineers. In addition, Contributed Funds of $231,437 for Construction.

[5] In addition, Contributed Funds of $2,402,909 for Construction.

[6] Authorized by the Chief of Engineers. In addition, Contributed Funds of $410,077 for Construction and $84,388 for Operation and Maintenance.

[7] In addition, Contributed Funds of $630,568 for Construction.

[8] In addition, Contributed Funds of $201,282 for Construction.

[9] Authorized by the Chief of Engineers.

[10] In addition, Contributed Funds of $30,200 for Construction.

[11] In addition, Contributed Funds of $647,569 for Construction.

[12] Abandonment authorized by R & H Act of 1965 (HD 98, 89th Congress, 1st Session).

[13] Authorized by the Chief of Engineers. In addition, Contributed Funds of $364,757 for Construction.

[14] In addition, Contributed Funds of $370,845 for Construction.

[15] In addition, Contributed Funds of $223,261 for Construction.

[16] Authorized by the Chief of Engineers and completed in November 1974. In addition, Contributed Funds of $405,471 for Construction.

[17] Authorized by the Chief of Engineers. In addition, Contributed Funds of $61,953 for Construction.

[18] In addition, Contributed Funds of $200,000 for Construction.

[19] Authorized by the Chief of Engineers. In addition, Contributed Funds of $774,373 for Construction.

[20] Authorized by the Chief of Engineers. In addition, Contributed Funds of $54,034 for Construction.

[21] In addition, Contributed Funds of $1,791,068 for Construction.

[22] Completed in 1941 and Maintenance transferred to Department of Navy.

TABLE 31–D OTHER AUTHORIZED BEACH EROSION CONTROL PROJECTS

Project	Status	For Last Full Report See Annual Report for:	Cost to September 2003	
			Construction	Operations and Maintenance
Afono Area and Aoa Area, American Samoa	Completed	1978	$ 254,015 [1]	$ ---
Alii Drive, Hawaii, Hawaii	Completed	2000	103,000 [16]	---
Asquiroga Bay, Guam	Completed	1986	227,181 [2]	---
Haleiwa Beach, Oahu, Hawaii	Completed	1967	240,148 [3]	---
Kaaawa Beach, Oahu, Hawaii	Completed	1976	176,488 [4]	---
Kapaa Town, Kauai, Hawaii	Completed	1977	158,916 [5]	---
Kekaha Beach, Kauai, Hawaii	Completed	1981	999,996 [6]	---
Kihei Beach, Maui, Hawaii	Completed	1972	154,313 [7]	---
Kualoa Regional Park, Oahu, Hawaii	Terminated	1982	355,472 [8]	---
Lepua Area, American Samoa	Completed	1992	1,706,225 [9]	---
Masefau Bay, American Samoa	Completed	1992	500,000 [2]	---
Matafao Shoreline, American Samoa	Completed	1984	225,000 [2]	---
Ofu Airstrip, American Samoa	Completed	1987	189,500	---
Pago Pago Airport, American Samoa	Completed	1984	174,941 [2]	---
Pago Pago to Nuuuli, American Samoa	Deferred	1978	394,187 [10]	---
Poloa Area, American Samoa	Completed	1978	136,040 [11]	---
Saipan Beach Road, CNMI	Completed	1992	176,000 [2]	---
Sand Island, Oahu, Hawaii	Completed	1981	301,879 [12]	---
Sand Island Shore Protection, Oahu, Hawaii	Completed	1992	1,313,400 [13]	---
Vatia Area, American Samoa	Completed	1978	154,309 [14]	---
Waikiki Beach, Oahu, Hawaii	Deferred	1979	729,087 [15]	183,000

[1]Authorized by the Chief of Engineers. In addition, $209,549 in Contributed Funds.

[2]Authorized by the Chief of Engineers.

[3]In addition, $160,098 in Contributed Funds.

[4]Authorized by the Chief of Engineers. In addition, $97,075 in Contributed Funds.

[5]Authorized by the Chief of Engineers. In addition, $56,916 in Contributed Funds.

[6]Authorized by the Chief of Engineers. In addition, $1,672,524 in Contributed funds.

[7]Authorized by the Chief of Engineers. In addition, $1,672,524 in Contributed Funds.

[8]Authorized by the Chief of Engineers and terminated in April 1980 as a Circuit Court ruled sand mining to be illegal. In addition, $177,300 in Contributed Funds.

[9]Authorized by the Chief of Engineers. In addition, $485,371 in Contributed Funds.

[10]Authorized by the Chief of Engineers. In addition, $312,480 in Contributed Funds.

[11]Authorized by the Chief of Engineers. In addition, $101,547 in Contributed Funds.

[12]Authorized by the Chief of Engineers. In addition, $255,728 in Contributed Funds.

[13]Authorized for construction by Public Law 100Ð71. In addition, $1,226,486 in Contributed Funds.

[14]Authorized by the Chief of Engineers. In addition, $132,075 in Contributed Funds.

[15]In addition $82,000 in Advanced Funds and $17,640 in Contributed Funds.

[16]Authorized by the Chief of Engineers. In addition, $126,000 in Contributed Funds.

TABLE 31–E OTHER AUTHORIZED FLOOD CONTROL PROJECTS

Project	Status	For Last Full Report See Annual Report for:	Cost to September 2003	
			Construction	Operations and Maintenance
Alenaio Stream, Hawaii, Hawaii	Completed	1997	10,226,000 [7]	---
Asan Village, Guam	Completed	1986	1,275,500	---
Hanapepe River, Kauai, Hawaii	Completed	1967	784,867 [1]	---
Iao Stream, Maui, Hawaii	Completed	1985	12,621,108	356,523
Kahawainui Stream, Oahu, Hawaii	Completed	1998	4,672,021 [2]	---
Kahoma Stream, Maui, Hawaii	Completed	1990	10,988,750 [3]	---
Kaneohe-Kailua Area, Oahu, Hawaii	Completed	1985	25,552,400 [4]	---
Kaunakakai Stream, Molokai, Hawaii	Completed	1950	73,478 [5]	---
Kawainui Marsh, Oahu, Hawaii	Completed	1987	3,714,000 [8]	---
Kawainui Swamp, Oahu, Hawaii	Completed	1967	1,265,567	---
Kuliouou Stream, Oahu, Hawaii	Completed	1971	1,000,000 [6]	---
Namo River, Guam	Completed	1982	2,416,314 [5]	---
Paauau Stream, Hawaii, Hawaii	Completed	1985	1,978,514	---
Wailoa Stream and Tributaries, Hawaii, Hawaii	Completed	1966	1,044,888	---

[1]In addition, $11,953 in Contributed Funds.
[2]Authorized by the Chief of Engineers. In addition, $679,205 in Contributed Funds.
[3]In addition, $645,992 in Contributed Funds.
[4]Includes Non-Federal reimbursement of recreation construction cost of $5,668,300. In addition, $8,175 in Contributed Funds.
[5]Authorized by the Chief of Engineers.
[6]Authorized by the Chief of Engineers. In addition, $540,335 in Contributed Funds.
[7]In addition, $4,483,300 in Contributed Funds.
[8]Authorized by the Chief of Engineers. In addition, $1,293,000 in Contributed Funds.

TABLE 31–F OTHER AUTHORIZED MULTIPLE PURPOSE PROJECTS, INCLUDING POWER

Project	Status	For Last Full Report See Annual Report for:	Cost to September 2003	
			Construction	Operations and Maintenance
Nanpil River Hydropower, Pohnpei, Federated States of Micronesia	Completed	1994	$ 8,000,000	$ ---

TABLE 31–G DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report for:	Date and Authority	Federal Funds Expended	Contributed Funds Expended
Agana River, Guam	1989	April 2002 PL 99-662	$ 250,000	$ ---
Ala Wai Harbor, Oahu, Hawaii	1976	November 1986 PL 99-662	40,117	---
Coconut Point, Nu'uuli, Tutuiula Island, American Samoa	---	April 2002 PL99-662	50,000	---
Hana Small Boat Harbor, Maui, Hawaii	1967	November 1977 HD #94-413	---	---
Hanalei Small Boat Harbor, Kauai, Hawaii	1967	November 1981 HD #97-59	---	---
Hanapepe Bay, Kauai, Hawaii	1965	November 1986 PL 99-662	---	---
Heeia–Kea Small Boat Harbor, Oahu, Hawaii	1972	January 1990 PL 99-662	1,481	---
Hilo Deep Draft Harbor, Hawaii, Hawaii	---	April 2002 PL 99-662	89,000	---
Kailua Small Boat Harbor, Oahu, Hawaii	1967	January 1990 PL 99-662	---	---
Kaimu Black Sand Beach, Hawaii, Hawaii	1975	July 1981 Director of Civil Works	86,235	---
Kapaakea Homestead Flood Control, Molokai, Hawaii	1979	July 1981 Director of Civil Works	221,500	---
Kaunakakai Deep Draft Harbor, Molokai, Hawaii	1966	January 1990 PL 99-662	133,188	292,441
Kaunakakai Small Draft Harbor, Molokai, Hawaii	---	January 1990 PL 99-662	---	---
Kewalo Harbor, Oahu, Hawaii	1976	September 1975 Director of Civil Works	98,800	---
Lahaina Small Boat Harbor, Maui, Hawaii	1977	January 1990 PL 99-662	186,937	---
Maunalua Bay Small Boat Harbor, Oahu, Hawaii	1972	January 1990 PL 99-662	30,378	---

TABLE 31–G (Contd.) DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report for:	Date and Authority	Federal Funds Expended	Contributed Funds Expended
Nawiliwili Deep Draft Harbor, Kauai, Hawaii	---	January 1990 PL 99-662	---	---
Rainmaker Hotel, American Samoa	---	November 1991 PL 99-662	---	---
Reeds Bay Small Boat Harbor, Hawaii, Hawaii	1967	January 1990 PL 99-662	---	---
Saipan Harbor, Northern Marianas	---	November 1991 PL 99-662	---	---
Talofofo Bay Shore Protection, Guam	---	August 1981 Director of Civil Works	80,764	---
Waimea Beach, Kauai, Hawaii	---	November 1986 PL 99-662	---	---
Wake Island Harbor, Wake Island	1950	November 1986 PL 99-662	---	---

TABLE 31–H INSPECTION OF COMPLETED NAVIGATION PROJECTS

Location	Dates of Inspection
Navigation Projects	
Agana Small Boat Harbor, Guam	June 2003
Agat Small Boat Harbor, Guam	June 2003
Auasi Small Boat Harbor, American Samoa	August 2003
Aunuu Small Boat Harbor, American Samoa	August 2003
Barbers Point Harbor, Oahu, Hawaii	September 2003
Haleiwa Small Boat Harbor, Oahu, Hawaii	September 2003
Hilo Harbor, Hawaii, Hawaii	May 2003
Honokohau Small Boat Harbor, Hawaii, Hawaii	May 2003
Kahului Deep Draft Harbor, Maui, Hawaii	July 2003
Kaulapapa Barge Harbor, Molokai, Hawaii	October 2002
Kawaihae Deep Draft Harbor, Hawaii, Hawaii	May 2003
Kawaihae Small Boat Harbor, Hawaii, Hawaii	May 2003
Laupahoehoe Harbor, Hawaii, Hawaii	May 2003
Manele Small Boat Harbor, Lanai, Hawaii	September 2003
Nawiliwili Deep Draft Harbor, Kauai, Hawaii	May 2003
Nawiliwili Small Boat, Kauai, Hawaii	May 2003
Ofu Small Boat Harbor, American Samoa	April 2003

TABLE 31–H (Contd.) INSPECTION OF COMPLETED NAVIGATION PROJECTS

Location	Dates of Inspection
Pohoiki Launch Ramp Facility, Hawaii, Hawaii	May 2003
Port Allen Harbor, Kauai, Hawaii	May 2003
Rota Harbor, CNMI	June 2003
Tau Small Boat Harbor, American Samoa	August 2003
Waianae Small Boat Harbor, Oahu, Hawaii	September 2003

TABLE 31–I INSPECTION OF COMPLETED FLOOD CONTROL AND BEACH EROSION CONTROL PROJECTS

Location	Dates of Inspection
Flood Control Projects	
Alenaio Stream, Hawaii, Hawaii	November 2002
Asan River, Guam	September 2003
Asan Village, Guam	July 2003
Iao Stream, Maui, Hawaii	October 2002
Kahawainui Stream, Oahu, Hawaii	January 2003
Kahoma Stream, Maui, Hawaii	October 2002
Kaneohe-Kailua Dam, Oahu, Hawaii	January 2003
Kaunakakai Stream, Molokai, Hawaii	October 2002
Kawainui Marsh, Oahu, Hawaii	December 2002
Kuliouou Stream, Oahu, Hawaii	December 2002
Namo River, Guam	September 2003
Paauau Stream, Hawaii, Hawaii	November 2002
Wailoa Stream, Hawaii, Hawaii	November 2002
Beach Erosion Control Projects	
Afono Area, American Samoa	April 2003
Alii Drive, Hawaii, Hawaii	May 2003
Aoa Area, American Samoa	April 2003
Asquiroga Bay, Guam	July 2003
Haleiwa Beach Park, Oahu, Hawaii	September 2003
Kaaawa Beach Park, Oahu, Hawaii	September 2003
Kahului Bay, Maui, Hawaii	June 2003
Kahului Wastewater Facility Shoreline, Maui, Hawaii	June 2003
Kapaa Beach, Kauai, Hawaii	October 2002
Kekaha Beach, Kauai, Hawaii	October 2002
Kihei Beach, Maui, Hawaii	June 2003
Masefau Bay, American Samoa	April 2003
Matafao Shoreline, American Samoa	April 2003
Ofu Airstrip, American Samoa	April 2003
Pago Pago Airport, American Samoa	April 2003
Pago to Nuuuli, American Samoa	April 2003

TABLE 31–I (Contd.) INSPECTION OF COMPLETED FLOOD CONTROL AND BEACH EROSION CONTROL PROJECTS

Location	Dates of Inspection
Beach Erosion Control Projects	
Poloa Area, American Samoa	April 2003
Saipan Beach Road, CNMI	July 2003
Sand Island, Oahu, Hawaii	April 2003
Sand Island State Park, Oahu, Hawaii	April 2003
Vatia Area, American Samoa	April 2003

TABLE 31–J NAVIGATION ACTIVITIES PURSUANT TO SECTION 107, PUBLIC LAW 86-645, AS AMENDED (PREAUTHORIZATION)

Study	Fiscal year Costs
Apra Small Boat Harbor, Guam	11,881
Aunuu Small Boat Harbor, American Samoa	9,285
Kahului Small Boat Harbor, Maui, Hawaii	91,135
Kukuiula Harbor, Kauai, Hawaii	12,033
Kahoolawe Small Boat Harbor, Hawaii	3,042
Outer Cove Marina, CNMI	527
Tau Small Boat Harbor, American Samoa	23,645
Western District Small Boat Harbor, American Samoa	8,190
Rota East Harbor, CNMI	27,365
Coordination Account	14,698
TOTAL	$201,801

TABLE 31–K EMERGENCY STREAMBANK AND SHORELINE PROTECTION ACTIVITIES PURSUANT TO SECTION 14, PUBLIC LAW 79–526, AS AMENDED (PREAUTHORIZATION)

Study	Fiscal year Costs
Hauula Highway, Oahu, Hawaii	2,588
Kaaawa Highway, Oahu, Hawaii	1,746
Power Plant Road, Guam	910
Punaluu Highway, Oahu, Hawaii	2,097
South Agat, Guam	3,119
Talofofo Bay, Guam	12,034
Coordination Account	10,349
TOTAL	$32,843

TABLE 31–L BEACH EROSION CONTROL ACTIVITIES PURSUANT TO SECTION 103 PUBLIC LAW 87-874, AS AMENDED (PREAUTHORIZATION)

Study	Fiscal year Costs
Commercial Port Road, CNMI	$47,955
F-1 Fuel Pier, Guam	6,117
Inarajan, Guam	719
Lanikai Beach, Oahu, Hawaii	9,033
Leloaloa, American Samoa	33,619
Pago Pago Airport, American Samoa	12,780
Coordination Account	10,676
TOTAL	$120,899

TABLE 31–M FLOOD CONTROL ACTIVITIES PURSUANT TO SECTION 205, PUBLIC LAW 80–858, AS AMENDED (PREAUTHORIZATION)

Study	Fiscal year Costs
Awaiakeakua Stream, Hawaii, Hawaii	$10,039
Kapaakea Stream, Molokai, Hawaii	4,221
Keopu-Hienaloli Stream, Hawaii, Hawaii	25,087
Kuliouou Stream, Oahu, Hawaii	28,359
Palai Stream, Hawaii, Hawaii	134,491
Waiakea Stream, Hawaii, Hawaii	14,103
Wailele Stream, Oahu, Hawaii	1,921
Coordination Account	15,849
TOTAL	$234,070

TABLE 31–N MODIFICATIONS FOR IMPROVEMENTS OF ENVIRONMENT PURSUANT TO SECTION 1135 PUBLIC LAW 99–662, AS AMENDED (PREAUTHORIZATION)

Study	Fiscal year Costs
Kanaha Pond, Maui, Hawaii	$32,329
Kawainui Marsh, Oahu, Hawaii	190,037
Kaunakakai Stream, Molokai, Hawaii	50,859
Pelekane Bay, Hawaii, Hawaii	40,193
Preliminary Restoratin Plans	5,041
Coordination Account	9,044
TOTAL	$327,503

ALASKA DISTRICT

This District consists of the State of Alaska.

IMPROVEMENTS

Navigation

Flood Control

General Investigations

Tables

Navigation

1. ANCHORAGE HARBOR, AK

Location. Anchorage is in south-central Alaska on the southeast shore of Knik Arm, north of Turnagain Arm near its junction with Cook Inlet. (See NOAA Charts 16660 and 16664.)

Existing project. Provides for dredging along a 3,300 foot baseline adjacent to the port of Anchorage dock to a depth of 35 feet below mean lower low water. The tidal range between mean lower low water and mean higher high water is 29 feet with an extreme range of 41 feet.

Local cooperation. Fully complied with.

Operations during fiscal year. Maintenance dredging by contract was conducted from June until the end of October. A total of 844,968 cubic yards was removed from the project in FY 03. American Construction's bucket dredge received support from Manson's hopper dredge, *Westport,* in August to keep the port open.

2. COOK INLET NAVIGATION, AK

Location. Southern flank of Knik Arm Shoal about 6 miles southwest of Anchorage, AK.

Existing project. Navigation channel 310-meters (1,017) feet wide, 11.5 meters (38-feet) deep, about 3,330-meters (10,925-feet) long.

Local cooperation. Fully complied with.

Terminal facilities. This project reduces delays for the container ships that supply cargo for 80 percent of the Alaskan people.

Operations during fiscal year. The PCA was executed on 9 Jan 98. Construction contract was awarded on 2 Dec 98 and was completed in September 2000 for a combined Federal and Contributed Cost of $10,507,100. A total of 1,459,543 cubic yards were removed in the two seasons of dredging by Manson Construction. The sponsor reimbursed the CORPS 10% of the project and the project is now fiscally complete.

3. CHIGNIK HARBOR, AK

Location. The city of Chignik is located on the south side of the Alaska Peninsula about 450 miles southwest of Anchorage.

Existing project. The city of Chignik is situated on the south shore of Alaska Peninsula in Southwestern Alaska. It is an active and growing island port whose economy is heavily dependent on commercial fishing. The local fleet presently anchors in the ice free, but inadequately protected harbor or ties up at the exposed city dock. At present boats are subject to overcrowding and hazardous mooring conditions between fishing periods. The anchorage is exposed to all storms from the southeast clockwise to the northwest. The violent southeast and northwest storms often damage and sometimes destroy boats by forcing them ashore or on the exposed rock reefs at low tides.

Local cooperation. Fully complied with.

Terminal facilities. The authorized project will provide a protected harbor, which will produce benefits in the form of reduced boat damage, increased fish harvest, and a harbor of refuge. The average annual navigation benefits attributable to the project are currently estimated at $1,695,400.

Operations during fiscal year. A construction contract was awarded on 20 August 2001 for $6,549,270. Construction work continued through Fiscal Year 2005.

4. DILLINGHAM HARBOR, AK

Location. Dillingham Harbor is located at the head of Nushagak Bay, an arm of Bristol Bay, on the right bank of Nushagak River, just below its confluence with Wood River; about 470 miles northeast of Dutch Harbor and 300 miles southwest of Anchorage. (See NOAA/NOS Chart #16660.)

Existing project. A small-boat basin 230,000 square feet in area with a depth of +2.0 feet mean lower low water along Scandinavian Creek with an entrance channel 250 feet long and 40 feet wide in Scandinavian Creek. Tidal range between mean lower low water and mean higher high water is 19.8 feet. Extreme range is 30 feet.

Local cooperation. Fully complied with.

Terminal facilities. There are four docks at the city of Dillingham; three privately owned, one owned by the city. Four publicly owned small boat floats located in the Harbor basin were installed in June 1982. The floats are removed before fall freezeup and replaced each spring.

Operations during fiscal year. Annual maintenance dredging was carried out by Nehalem River Dredging in June with the removal of 103,299 cubic yards. This was year 1 of a 3-year continuing contract.

5. FALSE PASS, AK

Location. False Pass is a small community located on the east side of Unimak Island, which is the east end of the Aleutian Island chain in Southwest Alaska. False Pass is approximately 700 air miles from Anchorage.

Existing project . The recommended plan will accommodate a fleet of 88 vessels in a 5.2-acre basin protected by two rubble-mound breakwaters, 1,300 feet and 600 feet in length. The project will require dredging of the inner basin and the entrance channel. Plans and specifications are being completed for construction in Fiscal Year 2004.

Local cooperation. Fully complied with.

Operation during fiscal year. The feasibility study was initiated in 1999. The project was authorized in the Water and Resources Development Act of 2000. A limited reevaluation report is currently being developed.

6. HOMER HARBOR, AK

Location. In Kachemak Bay, on Kenai Peninsula, 152 miles by water, southwest of Anchorage. The harbor site is near the extremity of Homer Spit, a narrow extension of land protruding southeasterly some 4.5 miles into the bay. (See NOAA/NOS Chart #16645.)

Existing project. Provides for a sheltered small-boat harbor about 50 acres in area near the terminus of Homer Spit. Project depth varies from 10 feet mean lower low water in the west end of the harbor to 20 feet below mean lower low water in the entrance channel and the east end. The entrance channel is protected by a main rock breakwater 1,018 feet long and secondary rock breakwater 238 feet long. Tidal range between mean lower low and mean higher high water is 18.1 feet, with an extreme range of 30.4 feet.

Operation during fiscal year. Annual maintenance dredging was carried out by Portable Hydraulic Dredging in September with the removal of approximately 4,438 cubic yards. This was year 1 of a 2-year continuing contract.

7. KAKE HARBOR, AK

Location. Kake, a community of 700, is located in Southeastern Alaska about 40 miles west of Petersburg and 800 miles northwest of Seattle.

Existing project. Commercial fishing and logging are the primary industries in the area. A feasibility report was completed in 1968, and the recommended project was authorized for construction. The completed project includes a rubblemound breakwater at the Portage Cove site. The city of Kake is the local sponsor, with financial support from the State.

Local cooperation. A Project Cooperation Agreement was signed on 26 Nov 1997.

Operation during fiscal year. Construction contract was awarded on 29 April 1998 to Kake Tribal Logging & Timber Corporation for $14,554,257. The breakwater was physically completed in October 2000 at a total cost of $15,825,588

8. NINILCHIK HARBOR, AK

Location. Ninilchik Harbor is located at the mouth of Ninilchik River in Cook Inlet, at the village of Ninilchik. The community of Ninilchik, AK, is about 40 miles upcoast from Homer and 112 miles southwest of Anchorage. (See NOAA/NOS Chart #16640.)

Existing project. A small-boat basin 400 feet long by 150 feet wide is dredged to an elevation of 2 feet above mean lower low water, with an approach channel 400 feet long and 50 feet wide dredged to an elevation of 9 feet above mean lower low water; protected by two rock jetties. Modifications for river channel diversion, the 2 armor rock jetties, and beach protection were accomplished in 1967 and 1969. Range between mean lower low water and mean higher high water is 19.1 feet, with an extreme range of 29.3 feet.

Local cooperation. Fully complied with.

Operation during fiscal year. Annual maintenance dredging was carried out by Portable Hydraulic Dredging in May with the removal of 11,432 cubic yards. This was year 1 of a 2-year continuing contract.

9. NOME HARBOR, AK

Location. Nome Harbor is located at the mouth of the Snake River at the city of Nome, AK, on the northerly shore of Norton Sound, an arm of the Bering Sea. It is a shallow open roadstead, 581 nautical miles north of Dutch Harbor and 545 air miles northwest of Anchorage. (See NOAA/NOS Chart #16206.)

Existing project. The federal navigation project, at 8 feet below mean lower low water, consists of a dogleg entrance channel 75 feet wide by 1550 feet long running form Norton Sound to a turning basin 250 feet wide by 600 feet long, located at the confluence of the Snake River with Dry and Bourbon Creeks. The entrance is flanked to seaward by a 400 foot eastern jetty and a 240 foot western jetty and is further protected through its length by a steel sheet pile revetment on both sides. The eastern waterfront is protected by a 3350-foot long seawall that extends from the eastern jetty. Range between mean lower low water and mean higher high water is 1.6 feet and extreme tidal range is 7.5 feet, but water levels are influenced more by wind than tide. Levels of 5 feet below mean

lower low water have been observed during offshore winds, and a level of 14 feet
above mean lower low water has been observed during a southerly storm.

Local cooperation. Fully complied with.

Terminal facilities. Cargoes and passengers from ocean vessels are lightered to and from shore, a distance of about 2 miles. Traffic enters the dredged channel and is handled over revetment, where a lighterage company has transfer facilities that are open to the public. Facilities are considered inadequate for existing commerce. In July 1984, the city of Nome received Department of Army authorization (permit)
to construct a 3,600-foot gravel filled causeway. Construction of the causeway began in July 1985. Due to lack of complete funding, the length of the causeway was shortened to 2,700 feet. Construction was completed in May 1987. Use of this causeway for off-loading petroleum products was delayed until the September 1987 arrival of a required berthing barge.

Operations during fiscal year. Received authorization for a project consisting of a harbor complex that includes a new breakwater that protects the existing causeway docks. Provides for a new entrance to the existing small boat harbor and a sediment management scheme to keep the channel open. Initial Construction funds were appropriated in FY 2001. PCA was executed 28 May 2002 and construction contract awarded to Kiewit-Manson on 30-Sep-03 for $42,167500.

Annual maintenance dredging was carried out in the outer portion of the entrance channel in June with the removal of 7,222 cubic yards. The work was accomplished by Portable Hydraulic Dredging of Portland, Oregon. This was year 2 of a 3-year continuing contract.

10. ST. GEORGE, AK

Location. The city of St. George is located on St. George Island, the southernmost island of the Pribilof Islands, near the edge of the southwest Bering Sea shelf.

Existing project. The project was authorized in the Energy and Water Development Appropriations Act of 1993, P.L. 102-377. The work consists of excavating the St. George Harbor entrance channel to 20 feet below mean lower low water in accordance with cost-sharing provisions in P.L. 99-662.

Local cooperation. **A** portion of the project was done by the Local Sponsor under Section 215, P.L. 90-483 with reimbursement to the Local Sponsor by the Government for its share on completion.

Operations during the fiscal year. The Local Sponsor completed the portion of the project under the Section 215 agreement. A limited reevaluation report is being developed.

11. ST. PAUL ISLAND HARBOR, AK

Location. St. Paul Island Harbor is located on the shore of Village Cove, the southern side of St. Paul Island, the largest and most populated island of the Pribilof group in the central southeast Bering Sea.

Local cooperation. The Project Cooperation Agreement was executed on November 24, 1998.

Operations during the fiscal year. Congress authorized improvements to the breakwater, the entrance channel, and the maneuvering area in WRDA of 1996. The construction contract for Phase I to build the three underwater reefs was awarded 19 March 1999 for $10,411,000 and completed in August 2001. A severe scour at the toe of the main breakwater was identified in the Spring of 2001. The Phase I contract was modified to repair the scour, but the contractor was able to complete a small portion of the repair at a cost of approximately $8 million. The Phase II construction contract for dredging the harbor was awarded to Kelly Ryan Construction on 27-June-2003 for $26,279,960, and is scheduled for completion in 2006.

A small boat harbor was authorized in WRDA 99 and it will be in a Phase III construction contract.

12. SAND POINT, AK

Location. Sand Point is a commercial fishing community on the Pacific coast off the southwestern Alaska Peninsula. Sand Point is about 570 air miles southwest of Anchorage and about midway between Kodiak and Dutch Harbor. The harbor provides close access to one of the State's most productive fishing areas. For the past few years the population has been stable at around 1,000. The economy is based almost wholly on commercial fishing.

The harbor currently provides no permanent protected moorage for vessels larger than 80 feet. In recent years, the fleet operating in the Bering Sea/Aleutian Island area, made up primarily of vessels ranging from 80 to 160 feet, has grown significantly. Skippers fishing in the Sand Point area currently travel long distances to secure protected moorage.

Existing Project. The authorized harbor improvements at Sand Point consist of construction of a 570-foot and a 730-foot breakwater from shore to form the basin and entrance channel of the new harbor. The crest height of the rubblemound breakwaters would be +16 ft MLLW. The breakwaters would be designed to withstand the forces of a 6.6-foot wave. The entrance channel would be dredged to –18 ft MLLW, it would be 120 feet wide to allow one-way traffic of vessels 150 feet in length with a 34-foot beam and 10.5 foot draft. The mooring basin would be dredged to a depth of –17 ft MLLW and would provide room for 37 vessels.

Local Cooperation. A Preconstruction Engineering and Design Agreement was signed on 10 July 1998.

Operations during fiscal year. Pacific Ocean Division approved the feasibility report on 14 May 1998. Plans and specifications are being developed and Steller Eider surveys are conducted every winter. A limited reevaluation report is being developed.

13. SEWARD HARBOR, AK

Location. Seward, located on the Kenai Peninsula is about 125 miles south of Anchorage, Alaska by road. The town is located at the northern end of Resurrection Bay off the Gulf of Alaska and can be reached by air, sea and rail as well as road. It lies at about 60 degrees 6 minutes N Latitude and 149 degrees 2 minutes W longitude.

Existing Project. The current harbor is filled to capacity with a waiting list of more than 330 boats. The Feasibility Report recommends expansion of the existing harbor eastward. The recommended project would accommodate 339 additional vessels and cost $11,930,000.

Local Cooperation. A Pre-construction Engineering and Design Agreement was signed on 23 April 1999.

Operations during fiscal year. Expansion of the harbor was authorized in WRDA of 1999. The PCA was executed on 13-June-2003. The construction contract is scheduled to be awarded in FY-2004.

14. WRANGELL HARBOR, AK

Location. Wrangell Harbor is located on the northwest side of Wrangell Island, 824 miles from Seattle and 160 miles from Juneau. (See U.S. Coast and Geodetic Survey Charts Nos. 8164, 8161, and 8201.)

Existing project. The project consists of a rubblemound breakwater 300 feet long to protect the southern portion of the outer harbor; a mooring basin 600 feet long, 400 feet wide, and 10 feet deep below mean lower low water within the protected area; an inner basin in the tide flat area east of Shakes Island, 325 feet wide and 550 feet long; a connecting channel 120 feet wide and approximately 530 feet long; a connecting channel 120 feet wide and approximately 530 feet long from the outer mooring basin all at a depth of 10 feet at mean lower low water; and construction of a rock mound breakwater 320 feet long on the reef north of Shakes Island. The range between mean lower low water and mean higher high water is 15.7 feet. The extreme tidal range is 26 feet. Heavy swells, dangerous to small fishing boats, are caused by the wind, which causes an additional rise of about one foot.

Construction of the breakwater north of Shakes Island was placed on inactive status as material to be used from the inner basin was unsuitable and the breakwater considered unnecessary for safe moorage of vessels. The cost of this portion was last revised in 1956 and estimated to be $6,500. (See table 40-B for authorizing legislation.)
The Heritage Harbor was authorized to be built in the Cemetery Point site in WRDA 99. This project will consist of two breakwaters and dredging an entrance channel and inner harbor area.

Local cooperation. The Project Cooperation Agreement will be executed when construction funds are appropriated and the plans and specifications are being developed.

Terminal facilities. There are eight wharves and floats in Wrangell Harbor. Two privately owned wharves serving general cargo and passenger terminals, one of which includes a cold storage facility, are open for public use. The remaining wharves serve various industrial purposes. One of the floats is publicly owned and is open for public use for mooring and servicing of small craft, and two privately owned floats serve oil-handling facilities.

Operations during fiscal year. A feasibility study for a new harbor was initiated in FY 97 and the project was authorized in WRDA 99. The PCA was executed on 7-March-2003 and the construction contract awarded to Kiewit Pacific Company on 11-July-2003 for $13,841,550

Flood Control

15. BETHEL BANK STABILIZATION, AK

Location. Bethel, AK is located in southwestern Alaska on the north bank of the Kuskokwim River 400 miles west of Anchorage.

Existing project. The project consists of rock riprap toe protection to be installed on the unprotected riverbank and at locations where existing city construction bulkheads are threatened by erosion. This includes 4,000 feet of unprotected riverbank and 4,200 feet of previously installed bulkheads. The construction contract was awarded on 26 May 1995. Emergency erosion protection for the Bethel Cargo Dock and the Mission Road Bulkhead began in July 1995 and continued through FY 1995 due to accelerated erosion that accumulated after spring runoff.

Location cooperation. A Project Cooperation Agreement was signed on 3 March 1994.

Terminal facilities. The POL tank farm is situated at the downstream end of the project and the city's general cargo dock is at the upstream end of the project.

Operations during fiscal year. The project was physically complete in September 1997. . The total project cost was $24,000,000 of which Bethel contributed $6,000,000. An FY01 Congressional Add authorized and directed the Corps to extend the existing project an additional 1,200 feet upstream. A post authorization letter report was completed and approved in FY02. PCA was executed on 27 December 2002 and a construction contract is scheduled to be awarded in FY-2005.

16. CHENA RIVER LAKES, AK

Background. For details, see Annual Report for FY00.

Operations during fiscal year. Two high water events occurred on the Chena River. The project had a very successful recreation season supported by volunteer hosts. This was year 2 of a 5 year Reimbursable Services Agreement with USGS for data collection and maintenance of ground water monitoring wells. An inspection was performed on all piezometer wells. Phase I of a complete boundary survey was performed.

17. DILLINGHAM EMERGENCY BANK STABILIZATION, AK

Location. Dillingham is located 350 miles southwest of Anchorage, Alaska. The project is located along the southeastern edge of Dillingham adjacent to the Nushagak River. Erosion of the toe of the bluff in this area was endangering critical utilities and numerous buildings and homes. Erosion at the west entrance to the harbor is endangering the facilities and vessels.

Existing project. The authorized project consists of a 1,600-foot long steel sheet pile bulkhead along the toe of the bluff from the Dillingham City Cargo dock to Snag Point. An additional 600 feet of bulkhead with riprap revetment was constructed at the east side of the entrance to the harbor. The sheet pile wall was constructed to an elevation of 28 feet MLLW. Mitigation measures including emergency access ladders and eyebolts for anchoring set nets used for by subsistence fishermen are included in the project. The authorized project also includes extending the sheet pile wall at the west entrance to the harbor. Designs for extending the wall are being evaluated.

Local cooperation. A Project Cooperation Agreement with the City of Dillingham Alaska was signed in January 1998 and will be amended to incorporate the extension of the sheet pile wall at the west entrance to the harbor.

Terminal Facilities. Dillingham has a general cargo dock and a fuel facility adjacent to the authorized project.

Operations during fiscal year. A construction contract was awarded in September 1998 in the amount of 1,798,850. Construction of the project was performed and a mod was awarded for $1,389,472. A second construction contract was awarded to complete the construction of the storm drain removed from the original contract. Extension of the project to the west entrance to the harbor was directed in the FY 2001 Appropriation Conference Report. A decision document is being developed to identify the scope and cost of the extension prior to preparing a PCA.

18. GALENA EMERGENCY BANK STABILIZATION

Location. Galena is located on the north bank of the Yukon River, 45 miles east of Nulato and 270 air miles west of Fairbanks.

Existing project. The project consists of a rock revetment along the Yukon River to protect the City of Galena from river erosion. In 1987, the Corps of Engineers constructed 1300 feet of riprap revetment protection along the river. The project is currently being out-flanked at the ends of the revetment by the river erosion. Approximately 1600 feet of additional revetment protection is required. Continued erosion and yearly ice breakups along the Yukon river are causing imminent danger to local facilities. Vital facilities, including barge facilities, utilities, and roads are in potential danger of being destroyed in the next year or two. Immediate action to protect these facilities is recommended because erosion is advancing at an accelerated pace in one area.

Local cooperation. The sponsor, the City of Galena supports the project. A post authhorization letter report was completed and approved in FY-03. The PCA has been executed and a construction contract is scheduled to be awarded in FY04.

19. KAKE DAM

Location. The city of Kake is located in southeast Alaska on the northwest shore of Kupreanof Island and has a population of approximately 700 residents, about 95 percent of which are Alaska natives. It is a Tlingit village with a fishing, logging, and subsistence lifestyle.

Existing project. Project is to construct a replacement dam on Gunnuk Creek in Kake, AK to provide drinking water and hydroelectricity. The recommended plan calls for construction of a gravity concrete dam approx. 53 feet upstream from the previous dam, covering an area about 4,750 ft^2, and a spillway height of 23 feet.

Local cooperation. Construction, General funds will be reprogrammed within available funds into the project. A letter report is being prepared, which will include required formulation, economic, engineering, design, cost estimates,

and environmental documentation. The hydroelectric segment will be evaluated and, if warranted, FERC licensing procedures initiated. Plans and specifications are being prepared. The project will be 100 percent federally funded with the Sponsor providing all of the necessary LERRD. The project will be turned over to the City of Kake for operation and maintenance after construction completion.

20. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Emergency flood control activities--repair, flood fighting, and rescue work (Public Law 99, 84th Congress, and antecedent legislation).

Federal costs for the fiscal year were $345,107 for disaster preparedness, and field investigations.

21. INSPECTION OF COMPLETED FLOOD CONTROL PROJECTS

Inspections were made of the following flood control works: Bethel Bank Stabilization at Bethel; Deering Streambank Protection at Deering; Metlakatla Erosion Protection at Metlakatla; Homer Spit Revetments at Homer; Tanana River Levee at Fairbanks, Talkeetna River at Talkeetna; Lowell Creek at Seward; Klutina River at Copper Center; Skagway River at Skagway; Gold Creek at Juneau; and Emmonak Streambank Protection on the Yukon River at Emmonak. An inspection was made of the shore protection works at Nome.

General Investigation

22. SURVEYS

Fiscal year costs were $3,387,916 of which $2,873,392 was for navigation studies, $34,815 for flood damage prevention studies, $69,529 for shoreline protection studies, $167,522 for special studies, $24,515 for watershed comprehensive studies, $128,966 for miscellaneous studies, and $89,177 for coordination studies with other agencies. In addition contributed funds in the amount of $454,496 were expended for General Investigation's Feasibility Studies: $84,612 for Akutan, $40,165 for Douglas Harbor, $52,486 for Valdez Harbor, $92,392 for Haines Harbor and for $142,028 PAS-Planning Assistance to States.

23. COLLECTION AND STUDY OF BASIC DATA

Technical assistance, information, flood plain manage-ment guidance, and other flood plain management services have been provided to military and nonmilitary Federal agencies, local communities, state agencies, Architectural Engineering firms, lending institutions, and private individuals at a fiscal year cost of $173,479.

Fiscal year costs for Hydrologic Studies were $29,961.

24. PRECONSTRUCTION ENGINEERING AND DESIGN

No PED in FY-2003.

25. SPECIAL PROJECTS

Alaska Environmental – Coordination with multiple State and Federal agencies on design consideration has been provided to the City of Buckland on its water and sewer project. The design is scheduled for construction start in 2004. FY-03 Costs were $93,976.

TABLE 32-A COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY 00	FY 01	FY 02	FY 03	Total to 30 Sep 03
1.	Anchorage Harbor, AK	New Work					533,235
		Approp.					533,235
		Cost					
		Maint.	6,816,434	3,414,043	3,602,447	6,317,923	54,759,569
		Approp.	6,812,665	3,058,210	3,401,411	5,768,401	53,636,134
		Cost					
	(Contrib. Funds)	Maint.					638,080
		Contrib.					638,080
		Cost					
2.	Cook Inlet	New Work					
	Navigation, AK	Approp.	2,837,000	230,030	-443,466		7,844,492
		Cost	3,133,052	284,402	-443,216		8,384,493
		Maint.				131,730	131,730
		Approp.				131,730	131,730
		Cost					
	(Contrib. Funds)	New Work					
		Approp.	2,428,000	547,027	45,915		2,843,216
		Cost	1,483,671		443,273		2,842,945
3.	Chignik Harbor, AK	New Work					
		Approp.	97,000	299,000	4,229,075	444,000	5,591,774
		Cost	108,929	264,664	4,001,240	-7,554	4,880,922
		Maint.					
		Approp.					
	(Contrib. Funds)	Cost					
		New Work					
		Approp.		100,000	895,000		1,087,660
		Cost.			527,294		618,552
4.	Dillingham Harbor, AK	New Work					
		Approp.					
		Cost					
		Maint.	379,152	727,510	996,741	601714	13,504,175
		Approp.	381,114	724,582	809,148	759,947	13,486,492
	(Contrib. Funds)	Cost					
		New Work					
		Approp.					1,700
		Cost.					1,700
5.	False Pass Harbor, AK	New Work					
		Approp.	230,000	-10000		180,000	550,000
		Cost	252,472	46,436	587	58,790	426,247
	(Contrib. Funds)	New Work					
		Approp.	222,113			-6,957	300,156
		Cost	219,312			-4,700	300,154

TABLE 32-A (Continued) **COST AND FINANCIAL STATEMENT**

See Section In Text	Project	Funding	FY 00	FY 01	FY 02	FY 03	Total to 30 Sep 03
6.	Homer Harbor, AK	New Work Approp.					3,512,350
		Cost					3,512,350
		Maint. Approp.	195,325	185,937	351,891	398,612	7,124,011
	(Contrib. Funds)	Cost	195,766	187,087	346,647	403,3223	6,803,650
7.	Kake Harbor, AK	New Work Approp.	4,279,000	803,000	-338,115		15,198,543
		Cost	4,931,274	1,035,450	-338,115		15,194,674
		Maint. Approp.	375,000		0		1,971,000
	(Contrib. Funds)	Cost	764,683		384,000		1,587,385
8.	Ninilchik Harbor, AK	New Work Approp.					428,720
		Cost					428,720
		Maint. Approp.	193,859	177,914	193,329	228,461	6,297,253
		Cost	195,361	178,725	193,329	228,461	6,297,452
9.	Nome Harbor, AK	New Work Approp.		308,000	105,000	385,000	798,000
		Cost		191,111	138,949	248,183	578,243
		New Work Approp.					
		Cost					
10.	St. George, AK	New Work Approp.	9,375				7,116,940
		Cost				59,860	5,122,122
	(Contrib. Funds)	New Work Approp.					3,004,000
		Cost					2,777,682
11.	St. Paul Island Harbor, AK	New Work Approp.	4,254,452	4,611,000	7,153,000	395,000	34,446,200
		Cost	4,765,051	4,747,508	7,179,794	500,404	33,821,455
		Maint. Approp.	195,010	-10		11,000	436,464
		Cost	195,000				425,464
	(Contrib. Funds)	New Work Approp.	1,593,450		1,400,000		3,219,836
		Cost.	200,000	195,321	2,598,129		3,218,810

TABLE 32-A COST AND FINANCIAL STATEMENT

(Continued)See Section In Text	Project	Funding	FY 00	FY 01	FY 02	FY 03	Total to 30 Sep 03
12.	Sand Point	New Work					
		Approp.				308,000	308,000
		Cost				104,580	104,580
13.	Seward Harbor	New Work					
		Approp.			1,000,000	4,000	1,004,000
		Cost			44,517	218,246	262,763
		New Work					
		Approp.				9,692	
		Cost					9,692
14.	Wrangell Harbor, AK	New Work					
		Approp.					
		Cost			215,000	339,000	554,000
		New Work			158,060	340,000	498,060
	(Contrib. Funds)	Approp.					
		Cost				8,573	8,573
						30,254	30,254
15.	Bethel Bank Stabilization, AK	New Work					
		Approp.	936,000		350,000	163,000	19,997,854
		Cost	957,145	16,327	257,704	195,802	19,714,944
	(Contributed Funds)	New Work					
		Approp.					4,690,000
		Cost					4,275,000
16.	Chena River Lakes, AK	New Work					
		Approp.			-9000		214,054,928
		Cost					214,054,134
		Maint.					
		Approp.	3,066,448		1,296,335	1,594,150	21,739,782
		Cost	3,725,421	2,124,267	1,301,289	1,504,217	19,666,998
	(Contrib. Funds)	New Work		2,131,442			
		Approp.		12,000			2,194,300
		Cost		12,000			2,157,929
17.	Dillingham Emergency Bank Stabilization	New Work					
		Approp.	2,400,000	-80,000	350,000	565,000	5,597,515
		Cost	3,484,210	478,403	155,795	735,021	5,531,853
18.	Galena Emergency Bank Stabilization	New Work					
				2,994,000	0	2,983,000	5,977,000
				81,289	154,398	132,493	368,180
		Approp.					
		Cost					
		New Work					
		Approp.					
		Cost					
19.	Kake Dam, AK	New Work					
		Approp.		629,000	650,915	631,000	1,910,915
		Cost		403,000	809,879	490,000	1,702,879
		Maint.					
	(Contrib. Funds)	Approp.					
		Cost					

Table 32-B **AUTHORIZING LEGISLATION**

See Section in Text	Date Authorizing Act	Project and Work Authorized	Documents
1.		**ANCHORAGE HARBOR, AK**	
	Jul. 3, 1958	Deep winter harbor, adjacent to docks, dredge to 35 feet below mean lower low water, protected by two jetties.[1]	H.Doc. 34, 85th Cong., 1st Sess.[2]
	Oct. 22, 1976	Extension of project limits.	P.L. 94-587
2.		**COOK INLET NAVIGATION, AK**	
	Oct. 12, 1996	Deepen the entrance channel to -30 feet. Enlarge and deepen the maneuvering basin to -29.0 feet with an area of 415 by 830 feet. Wave spending beach to +4 feet. Three offshore reefs each, 1,300 feet long, constructed to a depth of –12 feet. Wave energy channel 100 feet wide with bottom elevation of +2 feet.	Section 101(b)(2), Water Resources Development Act of 1996. Energy and Water Development Appropriations Act, 1999. P.L. 105-245.
3.		**CHIGNIK HARBOR, AK**	
	Oct. 12, 1996	Deepen the entrance channel to -30 feet. Enlarge and deepen the maneuvering basin to -29.0 feet with an area of 415 by 830 feet. Wave spending beach to +4 feet. Three offshore reefs each, 1,300 feet long, constructed to a depth of –12 feet. Wave energy channel 100 feet wide with bottom elevation of +2 feet.	P.L. 104-303, Water Resources Development Act of 1996. FY 1999 Congressional Add
4.		**DILLINGHAM HARBOR, AK**	
	Jul. 3, 1958	Basin 230,000 square feet in area with depth of 2 feet above MLLW along Scandinavian Creek, with entrance channel 1,100 feet long and 40 feet wide.	H. Doc. 390, 84th Cong., 2d Sess.[2]
5.			
	Oct. 31, 2000	**FALSE PASS HARBOR, AK** Dredging of the inner basin and the entrance channel to accommodate a fleet of 88 vessels in a 5.2 acre basin protected by two rubble-mound breakwaters, 1,300 feet and 600 feet in length.	House Report 106-1020, Section 101 (b)(1) (2), Water Resources Development Act of 2000, 106th Congress
6.		**HOMER HARBOR, AK**	
	Jul. 2, 1958	Basin 2.7 acres in area with depth of 12 feet below mean lower low water, and rock breakwater 1,260 feet long.	H.Doc. 34, 85th Cong., 1st Sess.[2]
	Aug. 19, 1964	Relocation and rehabilitation of project destroyed by March 27, 1964 earthquake, by construction of basin 10 acres in area with 12-foot depth over 2.75 acres and 15-foot depth over 7.25 acres protected by rock breakwaters, 1,018 feet and 238 feet long.	P.L. 88-451
	Jul. 14, 1960	Increased width and depth of entrance channel and an enlarged staging area. Basin enlarged from 16.5 to 50 acres.	Section 107, P.L. 86-645 Authorized by Chief of Engineers, Nov. 13, 1981
7.		**KAKE HARBOR, AK**	
	Aug. 13, 1968	Provides for a 1,580 foot long west breakwater and a 900 foot long south breakwater enclosing a 7 acre berthing area at -15 feet MLLW.	S. Doc. 249, 75th Cong., 1st Sess.
8.		**NINILCHIK HARBOR, AK**	
	Jul. 3, 1958	Basin 320 feet long by 150 feet wide with depth of 2 feet above mean lower low water, approach channel 400 feet long and 50 feet wide with depth of 9 feet above mean lower low water, protected by 410 foot jetty.	H.Doc. 34, 85th Cong., 1st Sess.[2]

Table 32-B (Continued) **AUTHORIZING LEGISLATION**

See Section in Text	Date Authorizing Act	Project and Work Authorized	Documents
9.		**NOME HARBOR, AK**	
	Aug. 8, 1917	Two jetties, easterly 335 feet and westerly 460 feet long revetment, channel and basin 200 feet wide and 250 feet long.	H.Doc. 1932, 64th Cong., 1st Sess.[2]
	Aug. 30, 1935	Extension of the jetties and enlarging basin to 250 feet wide and 600 feet long.[3]	H.Doc. 404, 71st Cong., 2d Sess., and Rivers and Harbors Committee Doc. 38, 73d Cong., 2d Sess.
	Jun. 16, 1948	Seawall	Reports of Chief of Engineers dated March 8, 1948
	Aug 17, 1999	New entrance to Nome Harbor; 2,986 feet long breakwater; 230 feet long causeway spur; 3,450 feet long entrance channel with depth to 22 feet; sediment traps and causeway bridge.	Report of Chief of Engineers as amended, dated August 2, 1999. Section 101 (a) (3), P.L. 106-53 Water Resource Development Act of 1999, 106th Cong.
10.		**ST. GEORGE, AK**	
	Nov. 17, 1986	Dredging the maneuvering area from an average depth of 3 feet above mean lower low water to 18 feet below mean lower low water and dredging the entrance channel from an average depth of 14 feet below mean lower low water to 20 feet below mean lower low water.	Section 107 of The Rivers and Harbors Act of 1960, Public Law 86-645, as amended.
11.		**ST. PAUL ISLAND, AK**	
	Nov. 17, 1986	Add 1,050 feet of breakwater at existing crest height, 37 below feet mean lower low water and 1,000 feet long with a crest height of 18 above mean lower low water.	Section 202, P.L. 99-662
	Oct. 12, 1996	Deepen the entrance channel to -30 feet. Enlarge and deepen the maneuvering basin to -29.0 feet with an area of 415 by 830 feet. Wave spending beach to +4 feet. Three offshore reefs each, 1,300 feet long, constructed to a depth of –12 feet.	Section 101(b)(3), P.L. 104-303 Water Resources Development Act of 1996.
	Aug 17, 1999	Wave energy channel 100 feet wide with bottom elevation of +2 feet. Added small boat harbor with entrance channel and maneuvering area to –20MLLW and appropriate wave protection features.	Section 302, P.L. 106-53 Water Resource Development Act of 1999, 106th Cong.
12.	Aug 17, 1999	**SAND POINT HARBOR, AK** Construct a mooring basin adjacent and south of the existing harbor. It incorporates the southern breakwater and causeway to the city dock by extending the existing breakwater.	Section 101 (a) (3), P.L. 106-53 Water Resource Development Act of 1999, 106th Cong.
13.	Aug 17, 1999	**SEWARD HARBOR, AK** Provide more moorage space. Project would accommodate 339 additional vessels.	Section 101 (a) (3), P.L. 106-53 Water Resource Development Act of 1999, 106th Cong
14.		**WRANGELL HARBOR, AK**	
	Sep. 22, 1922	Breakwater 300 feet long to protect southern portion of harbor.	H.Doc. 161, 67th Cong., 2d Sess.
	Aug. 30, 1935	Mooring basin 600 feet long, 400 feet wide, and 10 feet deep.	H.Doc. 202, 72nd Cong., 1st Sess.
	Mar. 2, 1945	Inner basin and connecting channel from the existing mooring basin, both 10 feet deep at mean lower low water, and breakwater 320 feet long on the reef north of Snakes Island.	H.Doc. 284, 76th Cong., 1st Sess.
	Aug 17, 1999	Project for navigation, Heritage Harbor, AK	Section 101 (a) (3), P.L. 106-53 WRDA of 1999, 106th Cong.

Table 32-B (Continued) **AUTHORIZING LEGISLATION**

See Section in Text	Date Authorizing Act	Project and Work Authorized	Documents
15.	Nov. 17, 1986	**BETHEL BANK STABILIZATION, AK** Streambank protection by placing riprap along 8,500 feet of riverbank.	Section 202, P.L. 99-662
16.	Aug. 13, 1968	**CHENA RIVER LAKES, AK** Provides for construction of a dam and floodway for the Chena River (17 miles east of Fairbanks) for a dam and reservoir on the Little Chena River, and for a 27 mile long levee system with interior drainage works on the north side of the Tanana River.	H. Doc. 148, 90th Cong., 2nd Sess. P.L. 90-483
17.	Dec. 19, 1985	**DILLINGHAM EMERGENCY BANK STABILIZATION, AK** Install 1,600 feet of steel sheetpile bulkhead along the toe of the bluff from the Dillingham city cargo dock to Snag Point.	Sec. 114 P.L. 99-190

1. Purchase of dredge and deepwater jetties deauthorized November 6, 1977 under section 12, Public Law 93-251.
2. Contains latest published map.
3. Extension of jetties classified "inactive".
4. Little Chena Dam deauthorized in 1991.

TABLE 32-C OTHER AUTHORIZED NAVIGATION PROJECTS

Project	Status	For Last Full Report See Annual Report for	Cost to Sep. 30, 1994 Construction	Cost to Sep. 30, 1994 Operation and Maintenance
Apoon Mouth of Yukon River, AK[1]	Completed	1920	128,896	2,154
Bar Point Harbor, AK[2]	Completed	1983	2,000,000[3]	
Bethel Small Boat Harbor, AK	Completed	1985	1,520,272	
Cook Inlet Shoals, AK	Completed	1977	1,220,000	5,000
Cordova Harbor, AK[2]	Completed	1978	843,534	488,156
Cordova, AK	Completed	1986	9,642,000	
Craig Harbor, AK	Completed	1983	1,033,500[4]	72,500
Douglas Harbor, AK	Completed	1963	282,019	
Dry Pass, AK	Completed	1983	943,351	23,466
Egegik River, AK	Completed	1972	4,441	3,107
Elfin Cove, AK	Completed	1959	154,191	
Gastineau Channel, AK	Completed	1964	789,461	102,701
Haines Harbor, AK[2]	Completed	1977	1,000,000[5]	
Homer Harbor, AK[2]	Completed	1987	2,000,000	
Hoonah Harbor, AK	Completed	1983	4,255,000[6]	
Humboldt Harbor, AK	Completed	1977	3,679,683[7]	
Iliuliuk Harbor, AK	Completed	1941	66,037	
Juneau Harbor, AK	Completed	1974	1,381,150	260,991
Kake Harbor, AK	Completed	1991	870,700	
Kasilof Harbor, AK[2]	Completed	1975	109,848	
Ketchikan Harbor, AK	Completed	1979	1,602,417	331,256
Kodiak Harbor, AK	Completed	1973	1,891,212[8]	37,946
Mekorykuk, AK	Completed	1986	1,372,139	
Myers Chuck Harbor, AK	Inactive	1970	9,700	
Naknek River, AK	Completed	1961	20,789	
Neva and Olga Straits, AK	Completed	1960	155,009	
Old Harbor, Kodiak Island, AK[2]	Completed	1972	370,415	132,946
Pelican Harbor, AK	Completed	1964	369,683	18,973
Petersburg Harbor, AK	Completed	1972	252,932	26,800
Port Alexander, AK	Completed	1949	17,000	
Port Lions, AK[2]	Completed	1986	1,825,311	
Rocky Pass, AK	Completed	1960	337,668	
St. Michael Canal, AK	Completed	1916	377,062	560
Seldovia Harbor, AK	Completed	1974	1,051,883[9]	5,518
Sergius Whitestone, AK	Completed	1973	1,798,010	1,934
Seward Harbor, AK	Completed	1973	712,369[10]	219,789
Sitka Harbor, AK	Completed	1973	1,611,009	15,400
Skagway Harbor, AK	Completed	1972	133,180	32,665
Stikine River, AK	Completed	1987		8,804
Valdez Harbor, AK	Completed	1968	649,740[11]	221,498
Wrangell Narrows, AK	Completed	1979	3,562,343	309,260

1. Abandonment recommended in H.Doc. 467, 69th Cong., 1st Sess.
2. Authorized by Chief of Engineers (Sec. 107).
3. In addition, $272,779 of State funds.
4. Includes $656,240 for Sec. 107 project.
5. In addition, $925,500 of State funds.
6. In addition, $973,875 of State funds.
7. In addition, $857,000 of State funds.
8. Includes $594,163 for rehabilitation.
9. Includes $400,000 for rehabilitation.
10. Includes $90,026 for rehabilitation and $2,528 Code 710. Recreation facilities at Completed projects.
11. Includes $73,000 for rehabilitation and $2,713 Code 710. Recreation facilities at Completed projects.

TABLE 32-E

OTHER AUTHORIZED FLOOD CONTROL PROJECTS

Project	Status	For Last Full Report See Annual Report for	Cost to Sep. 30, 1994 Construction	Cost to Sep. 30, 1994 Operation and Maintenance
Bethel Bank, Kuskokwim River[1]	Completed	1985	553,970	
Fairbanks, Tanana River & Chena Slough, AK	Completed	1943	557,000	
Gold Creek, AK	Completed	1975	876,006[2]	4,301
Klutina River, Copper Center, AK[3]	Completed	1973	260,681	
Lowell Creek, AK[4]	Completed	1945	416,382[5]	30,771
Salmon River, AK	Completed	1963	37,770[6 7]	162,925[8]
Talkeetna River, AK	Completed	1981	516,694	

1. Section 14.
2. In addition, $25,000 expended from contributed funds.
3. Authorized by Chief of Engineers (Sec. 205).
4. During FY88, $551,690 was expended from FC and CE.
5. In addition $25,000 expended from contributed funds.
6. Includes $34,197 of PWA funds.
7. In addition, $7,000 expended from contributed funds.
8. In addition, $27,400 expended from contributed funds.

TABLE 32-G

DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report for	Date Deauthorized	Federal Funds Expended	Contributed Funds Expended
Allison Lake, AK (Valdez Hydropower)		1992		
Anchorage Harbor, AK (Uncompleted Portion)	1967	1977		
Bradley Lake, AK 1983	1983	1982	46,701,000	
Ketchikan Harbor, AK (West Breakwater)	1979	1979		
Port Alexander, AK (Inner Harbor)	1949	1977		
Tolovana River, AK (Snagging)	1931	1977		
Little Chena River Dam	1983	1990		
Long Lake Dam	1975	1990		
Myers Chuck Harbor, AK	1970	1991	9,700	
Scammon Bay, AK		1992		
Skagway River, AK	1966	1991	26,385	

TABLE 32-H

NAVIGATION WORK UNDER
SPECIAL AUTHORIZATION
NAVIGATION ACTIVITIES PURSUANT TO SECTION 107,
PUBLIC LAW 86-645, AS AMENDED
(PREAUTHORIZATION)

Study Identification	Fiscal Year Costs
Coordination Account	35,954
Brown's Slough	21,070
Chenega Bay	17,301
Homer	60,252
King Cove	2,963
Ketchikan Navigation	0
Kokanok Harbor	33,731
Larsen Bay	0
Manley Hot Springs	41,501
Metlakatla	0
Noatak	19,035
Ouzinkie	144,831
Savoonga	21,524
St. Herman Harbor	5,111
Tatitlek	24,828
Teller Navigation	12,136
Haines	22
Whittier	0
Unalaska	0
TOTAL	440,259

TABLE 32-I

PROJECT CONDITION SURVEYS

Name of Project Date	Date Survey Conducted
Cordova Harbor	June 2000
Douglas Harbor	May 2000
Dry Pass Channel	May 2000
Haines Small Boat Harbor	May 2000
Kodiak, Near Is. Channel and St. Herman's Harbor	June 2000
Petersburg, North Harbor	May 2000
Seldovia Harbor and Deep Draft Channel	June 2000
Skagway Small Boat Harbor and Deep Draft Dock	May 2000
Valdez Small Boat Harbor	June 2000

TABLE 32-J

STREAM BANK EROSION WORK UNDER SPECIAL AUTHORIZATION EROSION ACTIVITIES PURSUANT TO SECTION 14, PUBLIC LAW 79-526, AS AMENDED (PREAUTHORIZATION)

Study Identification	Fiscal Year Costs
Coordination Account	16,027
Nenana	3,911
Big Delta State Historical Park	0
McGrath	20,477
Akiak	5,411
Kotlik	30,355
Northway	0
Port Heiden	7,465
Mekoruk	1,146
Egegik	957
Ninilchik	8,357
Kwethluk	2,105
Yakatak	3,889
Chevak	363
King Cove	2,963
Karluk	983
TOTAL	104,409

TABLE 32-K

ENVIRONMENTAL ACTIVITIES PURSUANT TO SECTION 1135, PUBLIC LAW 99-662

Study Identification	Fiscal Year Costs
Coordination Account	16,027
Preliminary Restoration Plan	523
Gold Creek Salmon Restoration	181,145
TOTAL	197,695

TABLE 32-L

AQUATIC ECOSYSTEM RESTORATION
PURSUANT TO SECTION 206,
PUBLIC LAW 104-303

Study Identification	Fiscal Year Costs
Coordination Account	13,000
Swiftwater Park Recreation	0
Preliminary Restoration Plan	11,507
Duck Creek Restoration	85,135
Chester Creek Restoration	98,223
Northway	40,708
Black Lake Ecosystem	30,571
TOTAL	279,144